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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,109	01/04/2002	William E. Berry	042390.P13141	8652

7590

05/07/2003

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EXAMINER

EDWARDS, ANTHONY Q

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/039,109	BERRY ET AL.	
	Examiner	Art Unit	
	Anthony Q. Edwards	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-16 is/are allowed.
- 6) ☒ Claim(s) 1-4,9 and 17-19 is/are rejected.
- 7) ☒ Claim(s) 5-8,10-13,20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 9, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,496,364 to Medin et al. in view of U.S. Patent No. 6,021,049 to Thompson et al. Referring to claim 1, Medin et al. disclose a computer system comprising a frame (120), a frame-level connector (128) on the frame, a chassis (104) insertable into the frame, and a chassis-level connector (118) on the chassis, which mates with the frame-level connector when the chassis is inserted into the frame. See FIGS. 1 & 3 and the corresponding specification. Likewise, FIG. 3 of Media shows a circuit board (316) on the chassis, which inherently includes a processor. Media does not disclose a locking mechanism, connected between the frame and the chassis, allowing for movement of the chassis into the frame but preventing movement of the chassis out of the frame, and a disengager, connected to the locking mechanism, which disengages the locking mechanism to allow for movement of the chassis out of the frame.

Thompson et al. disclose a retention device or locking mechanism (41) connected between a frame (43) and chassis (not numbered), as well as a disengager (65) connected to the locking mechanism, allowing movement of the chassis into the frame and movement of the chassis out of the frame, while also preventing movement of the chassis out of the frame. See FIGS. 4-6 and the corresponding specification. It would have been obvious to one of ordinary

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skill in the art at the time the invention was made to modify frame of Thompson et al. to include a retention device, as taught by Thompson et al., to provide secure mechanical attachment of the circuit board connector to and for limiting movement of the same.

Referring to claim 2, 3 and 9, Medin et al. in view of Thompson et al. disclose a computer system, wherein the locking mechanism (41) includes a ratchet gear having a plurality of ratchet teeth (71) and a ratchet pawl (68), movement of the chassis into the frame causing ratchet movement of the ratchet pawl sequentially into successive gaps between subsequent ones of the ratchet teeth, the ratchet pawl catching on a selected one of the ratchet teeth to prevent movement of the chassis in the opposite direction out of the frame, and wherein the disengager (65) has an actuating portion (69) manually movable, movement of the actuating portion causing disengagement of the ratchet pawl from the selected tooth to allow for movement of the chassis in the opposite direction out of the frame. See FIGS. 5 and 6 and the corresponding specification.

Referring to claim 4, Medin et al. in view of Thompson et al. disclose the computer system as claimed. See FIG. 1 of Medlin et al. and FIGS. 4 and 6 of Thompson et al. It is unclear whether Medin et al. in view of Thompson et al. disclose mating of the chassis-level connector with the frame-level connector creates a force between the chassis-level connector and the frame-level connector which tends to disengage the chassis-level connector from the frame-level connector and movement of the chassis in the opposite direction. However, Examiner takes Official Notice that such construction is well known and conventional. It would have obvious to one of ordinary skill in the art at the time the invention was made to have a force between the chassis-level connector and the frame-level connector, which tends to disengage the chassis-level

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connector from the frame-level connector and movement of the chassis in the opposite direction, because such construction is conventional.

Referring to claims 17-19, Medin et al. in view of Thompson et al. disclose the claimed method of operating a computer system including inserting a chassis, having a processor secured thereto, into a frame until a chassis-level connector on the chassis mates with a frame-level connector on the frame, a locking mechanism allowing for movement of the chassis in one direction into the frame but simultaneously locking the chassis to the frame to prevent movement of the chassis in an opposite direction out of the frame; and disengaging the locking mechanism to allow for movement of the chassis in the opposite direction out of the frame, wherein the locking mechanism includes a ratchet gear having a plurality of ratchet teeth, and a ratchet pawl, movement of the chassis into the frame causing ratchet movement of the ratchet pawl sequentially into successive gaps between subsequent ones of the ratchet teeth, the ratchet pawl catching on a selected one of the ratchet teeth to prevent movement of the chassis in the opposite direction out of the frame, such that the disengager has an actuating portion manually movable, movement of the actuating portion causing disengagement of the ratchet pawl from the selected tooth to allow for movement of the chassis in the opposite direction out of the frame. See FIGS. 5 and 6 of Thompson et al. and the corresponding specification.

Allowable Subject Matter

Claims 4-8, 10-13, 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

Claims 7, 8, 12 and 13 are allowable. Claims 7 and 12 recite a computer system having a mount structure on its frame and a frame-level connector, wherein further movement of a chassis into the frame causes movement of the mount structure relative to the frame. These features, in combination with the rest of the elements or steps, are not taught or suggested by the prior art references. Claim 8 depends, either directly or indirectly, from claim 7 and is therefore allowable for at least the reasons provided above. Likewise, Claim 13 depends, either directly or indirectly, from claim 12 and is therefore allowable for at least the reasons provided above.

Claims 5, 6, 10 and 11 are allowable. Claims 5 and 10 recite a computer system further comprising a biasing component, connected between the frame and the chassis, which biases the chassis in the opposite direction after insertion of the chassis into the frame, a force created by the biasing component moving the chassis out of the frame after the locking mechanism disengages. These features, in combination with the rest of the elements or steps, are not taught or suggested by the prior art references. Claim 6 depends, either directly or indirectly, from claim 5 and is therefore allowable for at least the reasons provided above. Likewise, Claim 11 depends, either directly or indirectly, from claim 10 and is therefore allowable for at least the reasons provided above.

Claims 20 and 21 are allowable. Claim 20 recites a method of operating a computer system, wherein the frame-level connector is mounted to a mount structure movably mounted to the frame, the chassis being moved so that, after the chassis mates with the frame-level connector, the mount structure is moved relative to the frame. These features, in combination with the rest of the elements or steps, are not taught or suggested by the prior art references.

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Claim 21 depends, either directly or indirectly, from claim 20 and is therefore allowable for at least the reasons provided above.

Claims 14-16 are allowed. Claim 14 recites a computer system comprising a frame and a mount structure movably on the frame. These features, in combination with the rest of the elements or steps, are not taught or suggested by the prior art references. Claims 15 and 16 depends, either directly or indirectly, from claim 20 and is therefore allowable for at least the reasons provided above.

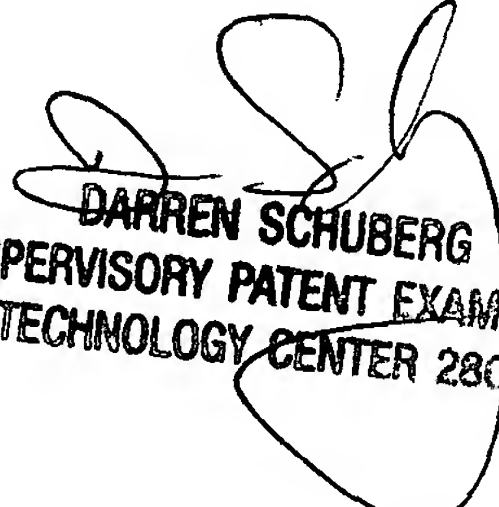
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 703-605-4214. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (703) 308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-9929.

aqe
April 29, 2003


DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800